Original Article

Late reporting for health care among patients presenting with oral maxillofacial tumours or tumour-like lesions in Muhimbili National Hospital, Tanzania

Ruth Msolla[1], Elison Nathaniel Simon[2], Karpal Singh Sohal[2], Sira Stanslaus Owibingire[2]

[1]School of Public Health and Social Sciences, Muhimbili University of Health and Allied Sciences, Tanzania.
[2] Department of Oral and Maxillofacial Surgery, Muhimbili University of Health and Allied Sciences, Tanzania.

ABSTRACT

Introduction: In developing countries patients with oro-facial tumours present for health care rather late with advanced disease, a situation that complicates management and negatively influences prognosis.

Objective: To determine the reasons for late reporting for health care among patients with tumours and tumour-like lesions in the maxillofacial region attending the Muhimbili National Hospital.

Materials and Methods: This was a descriptive cross-sectional study, which involved 144 patients with either tumours or tumour-like lesions in the oral and maxillofacial region. The study was conducted at the oral and maxillofacial surgery firm of the Muhimbili National Hospital (MNH). A structured questionnaire that was translated to Swahili language was used to gather information. The diagnosis was obtained from the histopathology department of the MNH. Data were analysed using SPSS version 20. Ethical clearance was obtained from the ethical committee of Muhimbili University of Health and Allied Sciences (MUHAS).

Results: Findings revealed that 55.6% of the patients lived near health facilities (dispensaries, health centres or hospitals) which did not offer oral health services. The average time of reporting after a referral from primary health facilities was rather long (69 weeks). Ameloblastoma was the frequently encountered benign tumour and squamous cell carcinoma was the commonest malignant neoplasm. The absence of pain, transport and treatment costs, lack of perception that the lesion was a problem, attending to traditional healers and the use of herbal medicines were reported to be main reasons for the delay in reporting for health care. The odds of reporting late to the referral hospital was three folds higher in patients who had delayed to seek treatment from the primary health facility.

Conclusion: Generally, there are varying levels of delay of patients with tumours in reporting to primary health facilities and to referral centres. The major reasons cited for delay in reporting for health care were cost implications and tendency to attend to traditional healers.

Corresponding author:
Sohal, Karpal Singh
Department of Oral and Maxillofacial Surgery,
Muhimbili University of Health and Allied Sciences.
P.O. Box 65014
Dar es Salaam, Tanzania
Telephone: +255 712 723 917
Email: karpal@live.com

Introduction

Various types of tumours occur in the oral and maxillofacial region with differing patterns and frequencies.[1-7] Benign tumours are generally painless, show a progressive gradual increase in size, however, have the capacity to grow to enormous sizes which often compromise function

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and aesthetics.[8-10] On the other hand, malignant tumours are often fraught with serious complications including pain, fast growth, local bleeding, general body weakness, distant metastasis and cachexia.[4, 5, 11]

In developing countries patients with oro-facial tumours present rather late with advanced disease.[9,10,12,13] It is a general observation that many Tanzanians of all age groups seek oral health services only when they have symptoms and specifically when they suffer a certain degree of incapacitation.[9,14,15,16] This complicates management and negatively influences prognosis. Delay in reporting for health care is a critical feature not only in planning management but also in the final treatment outcome. Considering that majority of those who suffer from such conditions depend on public health services, late reporting, therefore, imposes a serious burden to the government in terms of both human and material resources. This includes major surgeries that require more expertise, longer time of surgery, expensive medication, longer hospital stays after treatment and leaving the patients with large defects that often lead to severe morbidity.[9,10,12,17-19] To date, the reasons for late reporting for health care among Tanzanian patients with oral maxillofacial tumours and tumour-like lesions has not been clearly documented.

Therefore, the aim of this study was to determine the reasons for late reporting for health care among patients with oral and maxillofacial tumours and tumour-like lesions at the Muhimbili National Hospital (MNH).

METHODOLOGY

This descriptive cross-sectional study was conducted at the Oral and Maxillofacial Surgery firm of the Muhimbili National Hospital (MNH) in Dar es Salaam from April to June 2013. All patients with tumours or tumour-like lesions who presented at the oral and maxillofacial unit during the study period were included in the study. Patients who did not consent or could not provide relevant information were excluded from the study. The patient or escorting person (for children) was furnished with detailed information on the study, and after agreeing to participate, signed a written informed consent.

The independent variables were; demographic variables (age, sex, level of education), social economic factors (social economic status, level of knowledge), social-cultural factors (traditional beliefs, myths), organizational factors (long walking distance to health facility, lack of skilled personnel at primary centre, poor diagnostic equipment, cumbersome referral system) and the dependent variable was late reporting for oral health care.

An interview using a structured questionnaire translated from English to Swahili language was used to collect relevant information on the chief complaint, demographics, social-cultural and economic factors. The diagnosis was recorded from histological investigation results from the Central Pathology Laboratory of the MNH. The questionnaire was pre-tested in the same clinic before the actual study started.

Delay in reporting was categorized separately for benign and malignant tumours. For benign tumours delay was considered to have occurred if the patient reported to a primary health facility six months or more after noticing first symptoms while for malignant tumours delay was considered if the patient reported to a primary health facility more than one month after first symptoms. The age was grouped by a range of 20 years, while other independent factors were dichotomized for facilitating analysis. Education level was grouped into those with a maximum of primary education and those who completed minimally the secondary level of education. The marital status was categorized into those with spouses (married and cohabiting) and without spouses (single, widow, widowers and divorced). The distance from patient's residence to Dar es Salaam (DSM) was categorized into three groups (those living in DSM, those living less than 400 kilometres from DSM and those living more than 400 km from DSM). Delay in reporting to MNH

was considered if the patient came after 2 weeks since the referral was made.

Information gathered was entered into computer and data was processed and analysed using version 20 of Statistical Package for Social Science (SPSS). Statistical tests were used to look for an association between the different independent variables, and p-value for decision of association was set at $p < 0.05$. Logistic regression analysis was performed to assess the predictors of late reporting to MNH. Ethical clearance was sought and obtained from the Ethical Review Committee of MUHAS and written informed consent was independently obtained from each eligible participant.

RESULTS

A total of 144 patients diagnosed with a tumour or tumour-like lesion in the oro-facial region were included in this study. There were more (82, 56.9%) female patients compared to their male counterparts with the male to female ratio of 1:1.3. The ages of the patients ranged between one and ninety years, with the mean age of 34.7 ± 20.9 years. Thirty-seven percent of the patients were aged 21- 40 years, while 12.5% were in the > 60 years' age group [Table 1]. Majority (109, 75.7%) of the patients had at least completed their primary level of education, with only few (22, 15.3%) who did not get formal education at all. Peasants accounted for almost one-third (46, 31.9%) of all patients and most (84, 58.3%) patients were married [Table 1].

Table 1. ***Distribution of patients according to socio-demographic characteristics***

Socio-demographic characteristics	Frequency n= 144	Percentage (%)
Sex		
Male	62	43.1
Female	82	56.9
Age groups		
0-20	43	29.9
21-40	50	34.7
41-60	33	22.9
>60	18	12.5
Education		
Never been to school	22	15.3
Did not complete primary education	13	9.0
Primary school education	65	45.1
Did not complete secondary school	4	2.8
Secondary school education	32	22.2
College/University education	8	5.6
Marital Status		
Single	36	25.0
Married	84	58.3
Widow	13	9.0
Widower	5	3.5
Divorced	4	2.8
Cohabiting	2	1.4
Residence		
Dar-es Salaam	52	36.1
Regions near Dar es Salaam	33	22.9
Regions far from Dar es Salaam	59	41.0

One hundred and eleven (77.1%) patients reported that the nearest health facility was within a radius of five kilometres from their homes, while for the rest it was more than five kilometres. In more than a half (80, 55.6%) of the participants, the nearest health facility was a dispensary (Fig 1). Less than a half (63, 43.8%) of the health facility nearest to the patient had availability of dental services and only three (2.1%) patients reported getting regular dental check-ups.

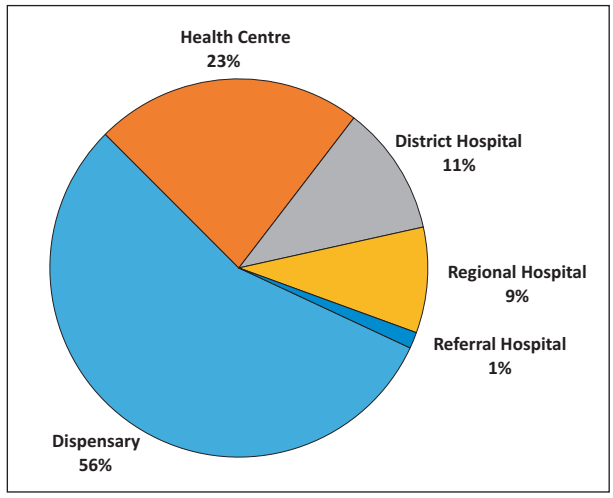

Fig 1: Distribution of the patients according to the types of nearest health facility to their residences

In one hundred and eighteen (81.9%) patients the lesions were noted by the individual patients while 17 (11.8%) patients were informed by close relatives and for 9 (6.3%) patients the lesions were incidentally discovered by clinicians. Pain as an accompanying symptom was reported by 57 (39.6%) patients. In 26 (18.1%) patients, the initial perception of the lesion was that it was a disease

while 118 (81.9%) patients perceived it to be a normal change in the body (Fig 2).

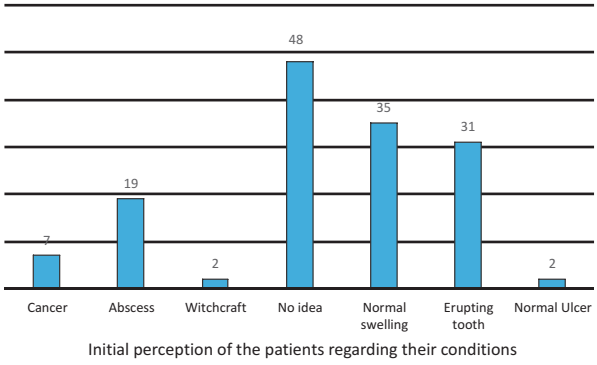

Fig 2: Distribution of the patients according to their initial perception of the condition they were suffering from.

The time taken (in weeks) for the patient to report to the nearest health facility for the first time since noting that they had a lesion ranged from zero weeks to 1040 weeks. A half (72, 50%) of the patients reported to a nearby health facility within one month after noting the symptoms for the first time. Nearly three quarters (107, 74.5%) of the patients reported within a year while eleven (7.6%) reported more than five years after initial symptoms. In both malignant and benign groups 40% of patients delayed seeking treatment at a nearby health facility. Statistically, there was no significant association between late reporting to the nearby health facility and sociodemographic factors such as age groups (p=0.133), education level (p=0.238), marital status (p=0.108), occupation (p=0.382) and sex of the patient (p=0.299). Cost was reported by 70% of the patients as the basic reason for delay in seeking treatment at nearby health facilities (Fig 3).

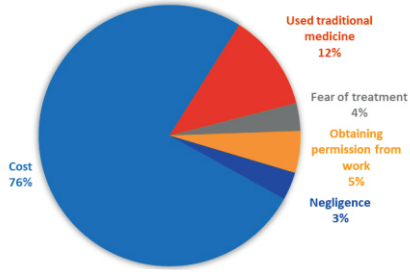

Fig 3: Reasons for delay in seeking treatment from the nearest health facility.

Patients who came to MNH as referrals from other health facilities were 115 (79.9%), whereas the remaining ones, either came on their own (14, 9.7%) or were advised by their relatives (15, 10.4%). The time taken by the patient to report to MNH after being referred ranged from zero to 260 weeks, with 67% reporting within the first two weeks and majority (97, 84.3%) reporting within four weeks. Statistically, there was no significant association between late reporting to MNH and sociodemographic factors such as age group (p=0.097), education level (p=0.369), marital status (p=0.387), occupation (p=0.060) and sex of the patient (p=0.835). A statistically significant association (p=0.000) between delay in reporting to MNH with distance from Dar es Salaam was observed. Also, there was a statistically significant relation between delaying to report to the primary health facility upon noting the disease for the first time with delay in reporting to MNH after the referral was made (p=0.004). The results of logistic regression analysis for predictors of late reporting to the referral hospital (MNH) are described in Table 2.

Table 2: Logistic regression analysis for predictors of late reporting to MNH after referral

Variables of interest	Delay in reporting to MNH N (%)		Unadjusted OR	
	No	Yes	p-value	OR (95%CI)
Distance from DSM				
Residing in DSM	33 (91.7%)	3 (8.3%)	0.000	1
<400km from DSM	16 (64%)	9 (36%)		6.18 (1.47, 26.03)
>400km from DSM	28 (51.8%)	26 (48.1%)		10.21 (2.79, 37.36)
Delay in reporting to the primary health facility				
No	52 (77.6%)	15 (22.4%)	0.004	1
Yes	25 (52.1%)	23 (47.9%)		3.18 (1.42, 7.15)

Almost 40 types of tumour and tumour-like conditions were diagnosed in this group of patients of which 109 (75.7%) were benign in nature [Table 3].

Table 3. Diagnosis of the different tumour and tumour-like lesions by sex

Diagnosis	Male	Female	Total
Ameloblastoma	10	23	33
Squamous cell carcinoma	11	10	21
Ossifying fibroma	5	8	13
Haemangioma	5	5	10
Pleomorphic adenoma	2	3	5
Fibrous dysplasia	3	2	5
Adenocystic carcinoma	2	1	3
Dentigerous cyst	1	2	3
Adenocarcinoma	2	0	2
Cystic hygroma	1	1	2
Kaposi's sarcoma	0	2	2
Osteosarcoma	0	2	2
Ranula	0	2	2
Others	20	21	41

DISCUSSION

The oral and maxillofacial unit of the MNH was chosen for this study because it is the only centre in the country where patients with different oral and maxillofacial conditions are referred to. The set-up of the health system in Tanzania is such that a patient with an oral and maxillofacial tumour is seen at a primary health facility (dispensary or health centre) where, after the clinical diagnosis is reached, he/she is referred to the district or regional hospital and ultimately to MNH. In almost all cases histological disagnosis is derived at the MNH.

There was a relatively higher number of females compared to males with a vast majority (70.2%) having low levels of education and falling in the low socio-economic status (i.e. unemployed, peasants and petty traders). For most patients in this study, the nearest health facility to their residency (dispensary or health centre) did not offer oral health services. This is most possibly the reason why in this and previous studies the majority reported that they did not undergo regular dental check-ups.[14,15,20] The majority of the patients presented with benign tumours that usually grow slowly and are painless, which to some was the reason for the delayed reporting to health facilities, consequently presenting with huge tumours compromising both function and aesthetics [Fig. 4]. While ameloblastoma was the commonest benign tumour encountered, squamous cell carcinoma was the commonest malignant tumour. This is in concurrence with previous studies in Tanzania and elsewhere in Africa.[1,15,20 - 22]

Remarkably, the average time interval of reporting to a health facility after noting the presence of the lesion was 69 weeks with a range of 1 - 1040 weeks. There was much longer delay to report to a primary health facility than was the case in reporting to the referral centre after referral from the primary health facility. Similarly, the number of patients who opted for traditional healing and herbal concoctions was high before reporting to the primary health facilities [Fig 3].

The rather long delays seen in some situations were due to misdiagnosis and wrong treatment at the primary centres where patients with tumours were unnecessarily treated with prolonged courses of antibiotics. Also, an existing strong belief in traditional medicine among a considerable proportion of the population made them "try" this avenue first until they despaired before they turned to modern medicine.[13,14] In fact, even in cases of recurrences patients presented with huge lesions although it could be assumed from previous experience they knew that treatment for such lesions existed [Fig. 5].

Cost was cited as one of the main problems of not reporting to a health facility after noting the first symptoms or after referral. Such costs included fare to the health facility for the patient and an escorting person and purchase of medicines. In Tanzania and probably elsewhere in Africa, to a large extent socio-economic factors determine the level of health care.[23] Since Tanzania has a fairly low gross domestic product (GDP) per capita, the level of health care to the general population is relatively low as well.[24] Although there are several health insurance schemes including the National Health Insurance Fund

(NHIF), most Tanzanians have not had the opportunity to join any of them. This implies that whenever they have health problems they are obliged to depend on their meagre reserves to foot the bills. A statistically significant association between delay in reporting to MNH with the distance from Dar es Salaam (DSM) was observed, whereby upon comparing those who were residing in DSM, those who resided less than 400 km from DSM were six times more likely to delay to report to MNH and chances for delay increased by 10 folds for those who resided more than 400 km from DSM. Moreover, there was a statistically significant relation between delaying to report to the primary health facility upon noting the lesion for the first time with delay in reporting to MNH after referral was made. The odds of reporting late to MNH after referral were three folds higher in patients who had delayed to seek treatment from the primary health facility. For example, the patient who delayed to report for treatment for 1040 weeks attributed this abnormally long delay to inability to cover the costs of travel and treatment.

CONCLUSIONS AND RECOMMENDATIONS

Generally, there were varying levels of delay of patients with tumours in reporting to primary health facilities and to referral centres. The major reasons cited were the cost involved and attending to traditional healers or taking herbal medicines. There is a great need for community education on the importance of early reporting to avert the problems associated with delays. Continuing education to the practicing oral health personnel at primary health facilities is necessary.

Competing interests

The authors declare no competing interests

Authors' contributions

RM – Making the proposal, data collection, data analysis and manuscript write up; ENS - Making the proposal, data collection, data analysis and manuscript write up; KSS- Management of the cases, data analysis and manuscript write up; SSO- making the proposal, management of the cases, manuscript write up; All authors have read and agreed to the final version of this manuscript and have equally contributed to its content and to the management of the cases

Fig 4: A first presentation of a patient with a disfiguring lesion on the left side of the face after a long delay.

Figure 5: A female patient presenting with a huge recurrent lesion. The arrow shows a surgical scar from previous surgery for similar lesion.

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